

### **Amendment to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

### **Listing of Claims:**

1. (withdrawn) A targeting construct comprising:
  - (a) a first polynucleotide sequence homologous to a platelet-activating factor receptor gene;
  - (b) a second polynucleotide sequence homologous to the platelet-activating factor receptor gene; and
  - (c) a selectable marker.
2. (withdrawn) The targeting construct of claim 1, wherein the targeting construct further comprises a screening marker.
3. (withdrawn) A method of producing a targeting construct, the method comprising:
  - (a) providing a first polynucleotide sequence homologous to a platelet-activating factor receptor gene;
  - (b) providing a second polynucleotide sequence homologous to the platelet-activating factor receptor;
  - (c) providing a selectable marker; and
  - (d) inserting the first sequence, second sequence, and selectable marker into a vector, to produce the targeting construct.
4. (withdrawn) A method of producing a targeting construct, the method comprising:
  - (a) providing a polynucleotide comprising a first sequence homologous to a first region of a platelet-activating factor receptor gene and a second sequence homologous to a platelet-activating factor receptor gene;
  - (b) inserting a positive selection marker in between the first and second sequences to form the targeting construct.

5. (withdrawn) A cell comprising a disruption in a platelet-activating factor receptor gene.
6. (withdrawn) The cell of claim 5, wherein the cell is a murine cell.
7. (withdrawn) The cell of claim 6, wherein the murine cell is an embryonic stem cell.
8. (currently amended) A transgenic mouse whose genome comprises a null platelet-activating factor receptor (PAFR) allele ~~homozygous disruption in a nucleic acid sequence in a nucleic acid sequence comprising the nucleic acid sequence set forth in SEQ ID NO:1, wherein the disruption comprises disruption of the nucleotide sequence set forth in SEQ ID NO:1, and wherein said transgenic mouse exhibits, relative to a wild-type mouse, a phenotype selected from the group consisting of decreased anxiety and increased pain threshold.~~
- 9-10. (canceled)
11. (withdrawn) A method of identifying an agent that modulates the expression of a platelet-activating factor receptor, the method comprising:
  - (a) providing a non-human transgenic animal comprising a disruption in a platelet-activating factor receptor gene;
  - (b) administering an agent to the non-human transgenic animal; and
  - (c) determining whether the expression of platelet-activating factor receptor in the non-human transgenic animal is modulated.
12. (withdrawn) A method of identifying an agent that modulates the function of a platelet-activating factor receptor, the method comprising:
  - (a) providing a non-human transgenic animal comprising a disruption in a platelet-activating factor receptor gene;
  - (b) administering an agent to the non-human transgenic animal; and
  - (c) determining whether the function of the disrupted platelet-activating factor receptor gene in the non-human transgenic animal is modulated.

13. (withdrawn) A method of identifying an agent that modulates the expression of platelet-activating factor receptor, the method comprising:

- (a) providing a cell comprising a disruption in a platelet-activating factor receptor gene;
- (b) contacting the cell with an agent; and
- (c) determining whether expression of the platelet-activating factor receptor is modulated.

14. (withdrawn) A method of identifying an agent that modulates the function of a platelet-activating factor receptor gene, the method comprising:

- (a) providing a cell comprising a disruption in a platelet-activating factor receptor gene;
- (b) contacting the cell with an agent; and
- (c) determining whether the function of the platelet-activating factor receptor gene is modulated.

15. (withdrawn) The method of claim 13 or claim 14, wherein the cell is derived from the non-human transgenic animal of claim 8.

16. (withdrawn) An agent identified by the method of claim 11, claim 12, claim 13, or claim 14.

17-19. (canceled)

20. (new) The transgenic mouse of claim 8, wherein said mouse is heterozygous for said null allele.

21. (new) The transgenic mouse of claim 8, wherein said mouse is homozygous for said null allele.

22. (new) The transgenic mouse of claim 8, wherein said null allele comprises a gene encoding a selection marker.

23. (new) The transgenic mouse of claim 22, wherein said gene encoding a selection marker is a neomycin resistance gene.

24. (new) The transgenic mouse of claim 8, wherein said mouse exhibits decreased anxiety in an open field test relative to a wild-type control mouse.

25. (new) The transgenic mouse of claim 24, wherein said decreased anxiety is characterized by increased time spent in the open field test.

26. (new) The transgenic mouse of claim 8, wherein said mouse exhibits increased pain threshold in a hot plate test relative to a wild-type control mouse.

27. (new) The transgenic mouse of claim 26, wherein said increased pain threshold is characterized by increased latency in the hot plate test.

28. (new) The transgenic mouse of claim 8, wherein the PAFR allele encodes for mRNA comprising SEQ ID NO:1.

29. (new) A method of identifying an agent capable of modulating activity of a null platelet-activating factor receptor (PAFR) gene or PAFR gene expression product, the method comprising:

- a) administering a putative agent to the transgenic mouse of claim 8;
- b) administering the agent to a wild-type control mouse; and
- c) comparing a physiological response of the transgenic mouse with that of the control mouse;

wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating activity of the gene or gene expression product.